

WHAT IS CLAIMED IS

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1. A load/unload operation control method for controlling a load/unload operation which loads/unloads a head which is provided on an arm with respect to a recording medium by a ramp load/unload mechanism, comprising:

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a control step controlling a driving current which is supplied to a driving part which drives the arm so as to undergo a gradual change during at least one of a load operation and an unload operation.

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2. The load/unload operation control method as claimed in claim 1, wherein said control step controls the driving current to undergo the gradual change during the load operation for at least one of a release operation which releases the arm which is held in an unloaded state, a circuit calibration operation, a head feed operation which feeds the head towards the recording medium, and a speed control operation which controls a speed of the head when the head is loaded to a desired track of the recording medium.

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3. The load/unload operation control method as claimed in claim 1, wherein said control step controls the driving current to undergo a

gradual change when competing the unload operation.

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4. The load/unload operation control method as claimed in claim 1, wherein said control step changes the driving current in steps which do not exceed a predetermined amount of change.

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5. The load/unload operation control method as claimed in claim 1, wherein said control step gradually changes the driving current by use of a lowpass filter.

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6. The load/unload operation control method as claimed in claim 1, wherein said control step changes the driving current in steps which do not exceed a predetermined amount of change, and gradually changes the driving current by use of a lowpass filter.

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7. The load/unload operation control method as claimed in claim 1, wherein said control step controls the driving current to change gradually only during a silent mode.

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8. The load/unload operation control method as claimed in claim 1, further comprising:

a mode judging step judging whether a mode is a silent mode or a normal mode,

5        said control step controlling the driving current to change sharply when said mode judging step judges the mode as being the normal mode.

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9. The load/unload operation control method as claimed in claim 2, wherein said control step controls the driving current to undergo a sharp  
15 change during the load operation for at least one of a release operation which releases the arm which is held in an unloaded state, a circuit calibration operation, a head feed operation which feeds the head towards the recording medium, and a speed  
20 control operation which controls a speed of the head when the head is loaded to a desired track of the recording medium.

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10. The load/unload operation control method as claimed in claim 9, wherein said control step controls the driving current to undergo a sharp  
30 change during the load operation for the head feed operation.

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11. A storage apparatus comprising:  
a load/unload mechanism which carries out a

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ramp load/unload operation to load/unload a head which is provided on an arm with respect to a recording medium by a driving part which drives the arm; and

- 5           a controller controlling a driving current which is supplied to the driving part so as to undergo a gradual change during at least one of a load operation and an unload operation.

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12. The storage apparatus as claimed in claim 11, wherein said controller controls the  
15 driving current to undergo the gradual change during the load operation for at least one of a release operation which releases the arm which is held in an unloaded state, a circuit calibration operation, a head feed operation which feeds the head towards the  
20 recording medium, and a speed control operation which controls a speed of the head when the head is loaded to a desired track of the recording medium.

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13. The storage apparatus as claimed in claim 11, wherein said controller controls the driving current to undergo a gradual change when  
30 competing the unload operation.

- 35           14. The storage apparatus as claimed in claim 11, wherein said controller changes the driving current in steps which do not exceed a

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predetermined amount of change.

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15. The storage apparatus as claimed in claim 11, wherein said controller gradually changes the driving current by use of a lowpass filter.

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16. The storage apparatus as claimed in claim 11, wherein said controller changes the driving current in steps which do not exceed a predetermined amount of change, and gradually changes the driving current by use of a lowpass filter.

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17. The storage apparatus as claimed in claim 15, wherein the lowpass filter has a filter characteristic such that the change in the driving current falls within a region of the filter characteristic excluding a mechanical resonance point of the storage apparatus.

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18. The storage apparatus as claimed in claim 11, wherein said controller controls the driving current to change gradually only during a silent mode.

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19. The storage apparatus as claimed in claim 11, further comprising:

mode judging means for judging whether a mode is a silent mode or a normal mode,

5        said controller controlling the driving current to change sharply when said mode judging means judges the mode as being the normal mode.

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20. The storage apparatus as claimed in claim 12, wherein said controller controls the driving current to undergo a sharp change during the  
15        load operation for at least one of a release operation which releases the arm which is held in an unloaded state, a circuit calibration operation, a head feed operation which feeds the head towards the recording medium, and a speed control operation  
20        which controls a speed of the head when the head is loaded to a desired track of the recording medium.

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21. The storage apparatus as claimed in claim 20, wherein said controller controls the driving current to undergo a sharp change during the load operation for the head feed operation.

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